IPD/NPIC-256-65 15 October 1965

Declass Review by NGA.

MEMORANDUM FOR: Assistant for Plans & Development, NPIC

SUBJECT

: Research and Development Objectives/Information Handling

PROBLEM

How should NPIC proceed with the "research and development" effort in the area which P&DS has designated "Information/Material Handling."?

FACTS BEARING ON THE PROBLEM.

- 1. In August 1965 Information Processing Division (IFD) after discussions with three other companies and reviewing other potential contractors requested permission to proceed with contract negotiations with proposal, dated 3 September 1965, calls for an analysis of the Center's substantive data base preliminary to the design of an integrated information processing system.
- 2. On 13 October 1965 Plans & Development Staff (P&DS) released a draft of the "Research and Development Objectives" for an "Information/. Material Handling System." The paper would be sent to a number of selected potential bidders, and would be followed in November 1965 by a bidders' conference and subsequent bidding for a contract. The target date for awarding the contract is 25 February 1966.

DISCUSSION OF THE FACTS

- 3. There are two basic differences between the P&DS approach to the "Information/Material Handling System" and the IPD approach to the "Integrated Information Processing System." The first of these differences concerns the objectives to be attained by the two approaches.
- a. There appear to be three essential objectives in the P&DS approach:

 1) definition of information handling problems; 2) definition of materials handling requirements; and 3) determination of requirements for a data link system in anticipation of image-transmitting collection systems. These three objectives have been lumped for administrative convenience; they need not and, in fact, probably will not result in a single contract.



SUBJECT: Research and Development Objectives/Information Handling

- b. The objective of the IPD approach is the analysis of the current NPIC substantive data base and of current and projected requirements against that data base as an essential first step toward implementation of an integrated information processing system. By virtue of its position in the Center, IPD is in a unique (if not unfortunate) position to identify the problems related to information processing, and has determined that the problem is the urgent need to provide the latest information in a more timely manner and with a greater degree of flexibility to meet a wide range of requests. IPD is acutely aware of many of the symptoms of the problem; undoubtedly, others will be uncovered during the course of the analysis.
- 4. The second basic difference might be termed the method of attack. P&DS proposes to select roughly a dozen potential contractors, send them a statement of "Research and Development Objectives," and invite them to a bidders' conference. Ultimately, bids for a contract would be solicited. Target date for awarding the contract is 25 February 1966. It is, in IPD's opinion, highly unlikely that this process will produce a contract any more responsive to NPIC's information processing needs than the proposal in hand. In contrast, IPD has, over a period of months, evaluated roughly a dozen organizations with a known capability to conduct analysis and design in the information processing area. In the professional opinion of IPD, which would have undertaken the analysis task "in-house" if fully staffed, is considered the most acceptable of the candidates considered and fully capable of producing competent results. A contract can be

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5. There still appears to be considerable confusion concerning the end-product of the proposed analysis. Essentially, the analysis will result in the formulation of an integrated information processing system concept and of the design specifications which the concept embodies. More specifically, the specifications will set forth: a) a data file structure, independent of hardware considerations, which will provide the degree of flexibility determined as desirable during the analysis; and b) a storage and retrieval algorithm, again independent of hardware considerations, which will provide the level of responsiveness determined as desirable during the analysis. Equipment specifications and configuration which will satisfy the system concept are design considerations, not analysis considerations.

awarded as soon as approval to proceed is received and will be completed

within five months after time clearances are received.

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6. The P&DS draft paper, "Research and Development Objectives, Information/Material Handling System," is fraught with contradictions, vagueness, misconceptions, poor grammar, and misspellings. To release the statement in its present form could only prove embarrassing to NPIC, P&DS and IPD. If it is necessary to issue objectives covering information handling, IPD will be glad to assist with its rewrite.

CONCLUSIONS

- 1. IPD cannot concur in the "Research and Development Objectives" for an "Information/Material Handling System" as presented in the P&DS draft of 13 October 1965.
- 2. Information processing, material handling and data link are probably not susceptible to a single contractual action.
- 3. The Executive Director, NPIC must determine whether the unlikely advantage to be gained by competitive bids outweighs the four months lost by this process. The study is to be completed within five months.

RECOMMEND ATTONS

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In view of the above considerations, it is recommended that:

- 1. A contract be negotiated with to conduct the analysis essential to design of an integrated information processing system.
- 2. P&DS use its traditional mechanism to select a contractor or contractors to define materials handling requirements.
- 3. P&DS use its traditional mechanism to select a contractor or contractors to determine requirements for a data link system.

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Chief,	Information	Processing	Division
NPIC			

Distribution:

Orig & 1 - Addressee -

2 - IPD file

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PAG/IPO/M-122-65 18 October 1965

MEMORANDUM FOR: Assistant for Plans & Development, NPIC

SUBJECT:

Comments Concerning the Information/Material Handling

Systems Program

REFERENCE:

a. Memorandum NPIC/P&DS-370-65 dated 13 October 1965

b. Memorandum PAG/M-1025-65 dated 23 September 1965

- 1. The Photographic Analysis Group agrees that there exists within NPIC an urgent requirement for a review and probably revision of its entire information processing system. The PAG recommendation concerning this subject is contained in reference (b), a copy of which is attached. However, we can not endorse, at this time, a Government sponsored research and development program in the field of information/material handling as it relates to imagery exploitation processes as proposed in reference (a). This position is predicated on several factors as follows:
 - a. This problem is too important to be coordinated on a crash basis with a one or two day deadline as proposed in your cover memorandum (reference a).
 - b. The proposal presented in reference (a) appears to be in obvious conflict with an Information Processing Division proposal on System Analysis. In the opinion of PAG, a Systems Analysis should be conducted prior to launching a program such as proposed in reference (a). Certain important in-house actions are necessary prior to any system analysis and, again, these actions are outlined in reference (b). Any program of system analysis and development must be based upon a Comprehensive System Plan which remains to be established. The Plan must be designed to provide total support to the NPIC's national Mission.

It is imperative that this planning be accomplished by experienced NPIC personnel who are relieved of their normal tasks and responsibilities and able to devote full time to the design of this Comprehensive System Plan. A suggested composite planning group is listed in the last paragraph of reference (b).

Colonel, USA

Assistant for Photographic Analysis, NPIC

Comments Concerning the Information/Material Handling Systems Program

Attachments:

- 1. NPIC/P&DS-370-65
- 2. PAG/M-1025/65

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